

The Relationship of School Structure and Support to Suspension Rates for Black and White High School Students

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This study examined the relationship between structure and support in the high school climate and suspension rates in a statewide sample of 199 schools. School climate surveys completed by 5,035 ninth grade students measured characteristics of authoritative schools, defined as highly supportive, yet highly structured with academic and behavioral expectations. Multivariate analyses showed that schools low on characteristics of an authoritative school had the highest schoolwide suspension rates for Black and White students after statistically controlling for school demographics. Furthermore, schools low on both structure and support had the largest racial discipline gaps. These findings highlight the characteristics of risky settings that may not meet the developmental needs of adolescents and may contribute to disproportionate disciplinary outcomes for Black students.

KEYWORDS: high school, school climate, race, suspension, support

Scholars have found the framework of authoritative parenting to be fruitful for understanding effective teaching style in the classroom (Walker, 2008; Wentzel, 2002). A substantial body of research indicates that teachers who are both supportive and demanding, characteristics of authoritative parenting, have students who are more engaged in learning and cooperative in the classroom (e.g., Hamre & Pianta, 2005; Wentzel, 2002). An authoritative climate in the classroom appears to have a protective effect on student attitudes and behavior. However, high school students typically have limited contact with individual teachers because they change classes throughout the school day and many disciplinary violations occur outside of the classroom. The purpose of the present study was to investigate whether the authoritative parenting framework can be applied to schoolwide conditions and used to identify high schools with low rates of disciplinary problems (Gregory et al., 2010).

Of particular interest, the study examined whether the disproportionately high suspension rate for Black students that has been reported in other studies (Wallace, Goodkind, Wallace, & Bachman, 2008) would be lower in authoritative schools. In order to examine school-level climate effects associated with schoolwide suspension rates, the analyses were conducted with a large sample of schools rather than individual students as the unit of analysis.

Baumrind (1968) noted that “arbitrary authority” characterized by “unjust, restrictive, subjective authority” may be met with a child’s “negative affect, disaffiliativeness and rebelliousness” (p. 258). To elicit student cooperation and compliance with school rules, school authorities may need to avoid the use of arbitrary authority that seems unjust and unfair. Accordingly, an authoritative school climate should be characterized by high expectations for student performance accompanied by a respectful and encouraging attitude. We hypothesized that students would be most responsive to academic and behavioral demands made in the context of a supportive atmosphere, and as a result would be less likely to receive suspensions from school.

Racial Disproportionality in School Discipline

The Black-White achievement gap has long been a concern of educators across the United States (Vanneman, Hamilton, Baldwin Anderson, &

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Rahman, 2009). Less often recognized is the accompanying disparity in school suspension rates—Black students are 2 to 3 times as likely to be suspended as White students (Wallace et al., 2008). What might be called the “racial discipline gap” has been documented since the 1970s (Children’s Defense Fund, 1975) and found in discipline records and surveys from single schools (Gregory & Weinstein, 2008; Skiba, Michael, Nardo, & Peterson, 2002), multiple cities (Gordon, Della Piana, & Keleher, 2000), and nationally representative samples of parents (Kewell-Ramani, Gilbertson, Fox, & Provasnik, 2007). The disproportionality based on race remains after removing the effects of socioeconomic status (Raffaele Mendez, Knoff, & Ferron, 2002; Skiba et al., 2002).

The differential rates of suspension for Black and White students are important because of the negative outcomes associated with suspension. Correlational and longitudinal research has shown that suspended students are more likely to be truant, miss instructional time, and drop out of high school (e.g., Arcia, 2006). Hemphill, Toumbourou, Herrenkohl, McMorris, and Catalano (2006) found that taking into account previous violent and aggressive behavior, as well as a variety of other risk factors (e.g., negative peer group, low grades), school suspension nevertheless was associated with an increased risk of antisocial behavior a year later. An analysis of the available evidence suggests that the racial discipline gap may contribute to the parallel gaps in achievement and graduation rates (Gregory, Skiba, & Noguera, 2010).

For over a decade, researchers have distinguished between characteristics that predict the effectiveness of high schools and the social equity of high schools (i.e., distributed achievement gains across groups; Lee & Bryk, 1989). Federal policy in the No Child Left Behind Act of 2001 also requires that schools distinguish between overall achievement of students in a school and the achievement of individual minority groups. A recent national report on Black and White student achievement provided an informative breakdown by state (Vanneman et al., 2009). The gap between racial groups in each state was not simply a function of overall school achievement levels but varied substantially across states. A description of eighth grade mathematics achievement illustrates this point. On average, the nation had a 31-point Black-White gap in student performance on the National Assessment of Education Progress mathematics standardized test in 2007. West Virginia had one of the narrowest gaps (21 points), yet both Black and White students scored well *below* their national group means. Alaska had a similarly narrow gap (23 points), but both groups scored *above* national group means. These observations led us to conclude that, in seeking strategies to improve achievement outcomes for Black students, it is important to consider both the absolute level of performance and the gap between Black and White students. In recognition of the complex trends seen in measures of the achievement gap, the present study made a similar

distinction between absolute suspension rates for racial groups and differences in those rates between groups (suspension gaps).

Authoritative Parenting

In the 1960s, Diana Baumrind presented a typology of parenting styles. She followed a predominantly White middle-class sample over time and found that an authoritative style was associated with a range of positive outcomes for adolescents (Baumrind, 1968, 1991). Baumrind (1991) conceptualized authoritative parenting as highly demanding and highly responsive. These parents were “firm” and used “straightforward confrontation and enforcement of rules.” They also encouraged individuation and used what she called “supportive control” which includes the “principled use of rational explanations to influence adolescents” (p. 64). Baumrind contrasted an authoritative style with the authoritarian, permissive, and rejecting-neglecting styles. Authoritarian parents “are demanding and directive but not responsive,” and permissive parents are “more responsive than they are demanding” (p. 62). Baumrind described the rejecting-neglecting style as disengaged parents who “are neither demanding nor responsive” and “do not structure and monitor, and are not supportive” (p. 62). In sum, they reject or neglect their responsibilities as parents.

Since Baumrind’s development of a typology of parents, other scholars have characterized parenting using a similar conceptualization but with a narrowed focus on two dimensions. For instance, Lamborn, Mounts, Steinberg, and Dornbusch (1991) identified authoritative parents as high on acceptance/involvement and strictness/supervision. Acceptance/involvement measured the extent to which adolescents perceived their parents as loving, responsive, and involved. Strictness/supervision measured the extent to which adolescents perceived that their parents monitored and supervised them. Herman, Dornbusch, Herron, and Herting (1997) used similar dimensions of parental socialization. Specifically, they examined *connection*—the degree to which adolescents reported involvement and fun with their parent. They also measured *regulation*—the degree to which adolescents perceived parental control in decision making, in monitoring their activities, and in maintaining household routines. Despite some differences in conceptualization, these studies share a common view that the most effective parenting is generated by an authoritative approach that involves two seemingly opposed dimensions, variously labeled as connection versus regulation, responsiveness versus demandingness, care versus control, or support versus structure.

Research on Authoritative Teaching and School Environments

Given the socializing role and quasi-parental status of teachers, it may be no surprise that scholars have drawn on the authoritative parenting

framework to understand how students respond to their teachers. Wentzel (2002) measured what she called rule setting (control), high expectations (maturity demands), negative feedback (lack of nurturance), and fairness (democratic communication). Based on middle school student surveys, she found that teacher negative feedback was associated with lower prosocial behavior and higher irresponsible behavior. She also found that low negative feedback and high expectations were associated with higher classroom grades. Notably, findings did not differ for Black and White students.

In a sample of about 7,000 adolescents from the National Education Longitudinal Study of 1988, Gregory and Weinstein (2004) found that student-reported connection (positive regard of teachers) and regulation (behavioral order in the classroom) predicted growth in achievement through the high school years. Specifically, a *combination* of high teacher connection and high teacher regulation predicted the greatest achievement gains for low-income adolescents.

Just as teachers vary in the degree to which they offer structure and support (Gregory & Weinstein, 2008), school environments may also differ in these characteristics—differences that have relevance for student outcomes. Decades of research on school climate have highlighted the role of student perceptions of the school environment in positive youth development (C. Anderson, 1982). Three studies have investigated characteristics of authoritative school environments (Lee & Smith, 1999; Pellerin, 2005; Shouse, 1996), although two of the studies (Lee & Smith, 1999; Shouse, 1996) did not explicitly classify schools as “authoritative.”

Using a national data set (National Education Longitudinal Study of 1988), Shouse (1996) investigated school differences on academic press and sense of community. Schoolwide academic press reflects one dimension of structure in which administrators and teachers hold high expectations for student learning and performance. Shouse (1996) found that a school culture characterized by both academic press and a sense of community was associated with higher achievement gains, especially in low socioeconomic status schools. He concluded that the combination of high academic press and high communality was protective for low-income students who may not have academic resources to draw on in their homes and communities.

Lee and Smith (1999) examined the combined effects of academic press and social support on achievement in math and reading in a sample of Chicago middle school students. They found that students with more social support learned the most if they also attended schools characterized by high academic press. This finding is important because it indicates an interaction between structure and support in producing what we term an authoritative school climate. Authoritative discipline theory proposes that adolescents are most responsive to teacher demands when they are made in the context of a supportive, encouraging relationship (Gregory & Cornell, 2009).

Pellerin (2005) explicitly tested an authoritative model of school environment using a nationally representative sample of 10th and 12th grade students from the High School Effectiveness Study. Pellerin used student and administrator surveys of school climate to measure responsiveness (based on survey items concerned with teacher warmth, open communication, and fairness) and demandingness (based on survey items measuring high standards for academic and behavioral performance, including administrators' perceptions of academic press). She adapted Baumrind's (1991) typology of parenting styles and classified schools into four groups: authoritative, authoritarian, permissive, and indifferent. Indifferent schools were conceptually similar to Baumrind's parents with a rejecting-neglecting style—those parents Baumrind called “unengaged” who were neither responsive nor demanding. Pellerin found that compared to authoritarian, permissive, and indifferent schools, authoritative schools had students with the lowest disengagement. In other words, schools high on responsiveness and demandingness had the least amount of cutting, tardiness, lack of preparation for class, and absenteeism, compared to other schools.

The three aforementioned studies examined achievement-oriented outcomes (e.g., reading scores or disengagement from classroom activities) as they relate to an authoritative school environment (Lee & Smith, 1999; Pellerin, 2005; Shouse, 1996). The current study addresses a gap in our understanding—whether an authoritative school environment (high structure and high support) predicts school disciplinary outcomes. Based on previous research, we conceptualized that authoritative approaches include a combination of demandingness, which we have termed “structure,” and an affective dimension, termed “support” (Gregory & Cornell, 2009; Herman et al., 1997; Lamborn et al., 1991). Given past classroom research (Walker, 2008; Wentzel, 2002), we conceptualized structure in several different ways—including a behavioral dimension related to school rules and an academic dimension related to scholastic success. Accordingly, we measured structure with two scales. The Experience of School Rules scale asks students whether school rules are fairly and strictly enforced. These items have been administered in nationally representative samples of students in Grades 8–12 as part of the School Crime Supplement to the National Crime Victimization Survey (Dinkes, Cataldi, Kena, & Baum, 2006; National Center for Education Statistics [NCES], 2005). The other structure scale, Academic Press, asks students whether they are pushed to work hard and turn in thoughtful work (Midgley, Maehr, Hruda, Anderman, & Freeman, 2000).

We conceptualized support as the degree to which students feel their teachers are caring and concerned about them. Student-perceived positive teacher and student relationships are associated with a range of positive adolescent outcomes, including higher grade point averages (Goodenow, 1993) and reduced problem behavior (Jessor et al., 2003). We used one scale to measure support, Supportive School Climate (Austin & Duerr, 2005). A study

of California secondary schools using a modified version of this scale found that achievement test scores increased more in schools where students reported more supportive relationships with their teachers and other adults at school (Hanson & Austin, 2003).

We hypothesized that an authoritative environment would be associated with positive outcomes for both Black and White students. Several studies have found that an authoritative parenting style is beneficial for various racial and ethnic groups. For instance, authoritative parenting predicted higher educational aspirations in low-income Hispanic and Black youth (Gorman-Smith, Tolan, & Henry, 2000), lower problem behavior with adolescents from impoverished urban families (Shumow, Vandell, & Posner, 1999), and higher academic grades (Taylor, Hinton, & Wilson, 1995) for Black teens. Moreover, qualitative research has found that teachers who are warm demanders (Irvine, 2002) build trusting relationships with students of color and low-income students. Taken together, prior research on authoritative parenting and teaching suggests that schools with high structure/support should be beneficial for both Black and White students. In light of the disproportionate disciplinary and academic outcomes for Black and White students, however, it is important to examine whether an authoritative school climate is associated with comparable suspension rates.

School Risk and Suspension Rates

Studies of racial differences must consider other potentially confounding demographic variables. Given past research on demographic risk, four key variables were considered in the current study. The urban location (urbanicity) and rates of poverty among the student body are two often-confounded factors in school research. Urban, low-income schools tend to have higher rates of self-reported misbehavior than suburban, wealthy schools (Skiba, Rausch, & Ritter, 2004; Stewart, 2003). Second, schools with more students who qualify for free or reduced-priced meals (an indicator of family poverty) have higher rates of victimization, delinquency, and suspension (Gottfredson, Gottfredson, Payne, & Gottfredson, 2005; Raffaele Mendez et al., 2002).

Third, racial composition has been another school characteristic associated with higher suspension rates. For instance, schools with higher percentages of Black students have higher rates of suspension (Raffaele Mendez et al., 2002) and higher rates of teacher-reported victimization (Gottfredson et al., 2005).

A final school characteristic is school enrollment size. Whereas Hellman and Beaton (1986) and Christle, Nelson, and Jolivet (2004) reported that total student enrollment had no significant effect on suspension rates, others reported that larger schools experience more student misbehavior and violence than smaller schools (Astor, Meyer, & Behre, 1999; Duke, 2002;

Gregory et al.

Gottfredson & Gottfredson, 1985; but also see Klein, Cornell, Fan, & Gregory, 2010). A recent review of 57 articles on school size clearly favored small schools across a wide array of student and organizational outcomes, including academic achievement, school climate, student engagement, and cost-efficiency (Leithwood & Jantzi, 2009). Taken together, prior research suggests measures of school urbanicity, student poverty and racial composition, and enrollment need to be considered to determine how the school environment is associated with suspension rates.

Summary

The current study draws on research on parenting and teaching style to provide a theoretical framework for characterizing authoritative school environments. Several studies have shown that schools with high academic press/expectations and high consistency in enforcement of rules (structure) as well as high care and sense of community (support) have positive academic outcomes for adolescents (Lee & Smith, 1999; Pellerin, 2005; Shouse, 1996). As yet, no studies have examined whether structure and support, in combination, are associated with low suspension rates. Given the persistent trends in the disproportionate suspension of Black students, it is important to ascertain whether these characteristics of authoritative schools are associated with low suspension rates for both Black and White students. Following the lead from research on the achievement gap (Lee & Bryk, 1989), the study also examined whether characteristics of authoritative schools predict low gaps in suspension rates between Black and White students.

Method

Participants and Procedures

In spring 2007, we collected school climate surveys from ninth grade students in 289 of the 314 public high schools in the state of Virginia. We selected ninth grade because these students are completing the first year of high school and have a high rate of discipline problems (45% of all discipline violations for Grades 9–12 in Virginia; Virginia Department of Education, 2005). The school participation rate was more than 92%, which was achieved with the cooperation of the Virginia Department of Education and the Virginia Department of Criminal Justice Services, which endorsed the study and encouraged participation. Surveys were completed online in each school. With a few exceptions (e.g., small rural schools), each school selected around 25 ninth grade students from their enrollment list using a set of random numbers generated for each school based on class size.

Table 1

School Safety, Structure, Support, and Student Demographics (N = 199 schools)

Variable	<i>M</i>	<i>SD</i>	Min	Max
Suspension rate (%)				
Black (%)	24	11	00	67
White (%)	11	7	2	47
Suspension gap (%) ^a	13	7	-11	37
School/community composition				
Urbanicity	1,070	1,249	21	7,287
Free/reduced priced meal (%)	28	15	2	72
Black (%)	30	22	2	93
School enrollment	1,449	612	214	2,881
School climate				
Experience of school rules	19.1	0.96	17	23
Supportive climate	26.9	2.1	21	32
Academic press	20.4	1.15	17	23

^aDifference calculated as Black rate minus White rate.

Two related problems affected the sample of schools available for study. First, the percentage of Black (or White) suspensions could be unduly influenced by a small number of cases if there were only a few Black (or White) students in the school. To reduce this potential source of unreliability in measuring suspension rates, 34 schools with fewer than 10 Black students and one school with fewer than 10 White students were omitted from the sample, reducing the sample to 255 schools. A second problem was that, because of its procedures to protect the confidentiality of student records, the state Department of Education would not release data on school suspensions for any racial group in which fewer than 10 (1–9) students of that racial group were suspended. For example, if 1 to 9 Black students were suspended from Jones High School, the cell frequency for Black student suspensions was blank. Finally, as mentioned in the results section, two schools were excluded as sample outliers in our regression analyses. These schools demonstrated very high standardized residual values, ranging from 2.9 to 4.2, for at least two of the three outcome variables.

Descriptive statistics for the sample of 199 schools are reported in Table 1. In brief, the schools had an average enrollment of 1,449 students (range = 214–2,881), with averages of approximately 59% White, 30% Black, and 11% other minority groups (primarily Hispanic or Latino, 6%). Approximately 28% of students were enrolled in the free or reduced-price meal (FRPM) program.

We compared the 199 schools in the final sample with the 88 excluded schools. As would be expected, the 199 schools had larger enrollments

(means of 1,449 for the sample versus 682 for the excluded schools), $t(285) = -10.21$, $p < .001$. They also had a higher proportion of Black students (means of 30% versus 12%), $t(285) = -6.12$, $p < .001$. The sample schools tended to be located in more urban settings as measured by population density (means of 1,070 residents per square mile versus 647 residents per square mile), $t(285) = -2.63$, $p < .01$. Finally, the sample schools also had a slightly lower proportion of students on FRPM (means of 28% versus 35%), $t(285) = 3.44$, $p < .01$. The relatively higher rate of FRPM students in the excluded schools reflects Virginia demographics, which include many small schools in rural settings with relatively high rates of poverty among a predominantly White population.

Measures

School sociodemographic characteristics. Virginia Department of Education records from the 2006–2007 year were used to determine enrollment, percentage of White and Black students, and percentage of students receiving FRPMs. Urbanicity was defined as population density (residents per square mile) based on the 2000 census of the U.S. Census Bureau.

Student perceptions of the school climate. The Supportive School Climate scale of Austin and Duerr (2005) was used to measure how much students perceive that adults in their school are supportive and respectful of students and has been shown to predict higher achievement test scores (Hanson & Austin, 2003). The scale consists of eight items asking students how much they agree (*strongly disagree, disagree, agree, strongly agree*) that the adults in their school “really care about all students,” “treat all students fairly,” and show respect and support for students in other ways (see appendix). The scale had a Cronbach’s alpha of .96 in our sample. The items were averaged for each student, and these individual student means were averaged across students in each school to yield a school-level score.

Two different measurements of structure were collected on the student survey. The Academic Press scale (Midgley et al., 2000) contained six items measuring how much teachers press the student to study hard and do challenging work (see appendix). Sample items include, “My teachers don’t let me do just easy work, but make me think” and “My teachers accept nothing less than my full effort” (*not at all true to very true*). Using this scale, Middleton and Midgley (2002) found that student perceptions that their teachers pressed them for understanding were related to their self-regulation and academic self-efficacy. In the present study, the six items on the Academic Press scale were averaged for each student and aggregated across students within each school to yield a school-level score with an alpha of .84.

The second measure of structure was Experience of School Rules, which is a seven-item scale used in the School Crime Supplement to the National Crime Victimization Survey (NCES, 2005). The Bureau of Justice Statistics,

the NCES, and the Census Bureau jointly designed the survey items, which had been utilized in NCES surveys every 2 years since 1999 (Inter-University Consortium for Political and Social Research, 2005). Students responded (*strongly disagree, disagree, agree, strongly agree*) to seven items designed to measure perceptions of school rules as fair and uniformly enforced, such as “The school rules are fair” and “The school rules are strictly enforced” (see appendix). The scale items were averaged for each student and aggregated across students within each school to yield a school-level score with an alpha of .74.

School suspension. Virginia schools are required to maintain records of out-of-school short-term suspensions, defined as removal from school for 1 to 10 days, and long-term suspensions, defined as removal from school for more than 10 days. We examined short-term suspensions in this study because they are frequently given (annual average of 151 per school), whereas long-term suspensions are given infrequently (annual average of 8 per school) and 64% of schools had fewer than two long-term suspensions. Suspension rates were calculated for Black and White students without duplication, meaning that a suspended student was counted only once, regardless of how many times the student was suspended. Nonduplicated suspensions are commonly used in studies of suspension (Hemphill et al., 2006; Wallace et al., 2008) and avoid the problem of nonindependence of suspensions when the same student is counted more than once. The racial suspension gap was calculated by subtracting the White suspension rate from the Black suspension rate.

Results

Descriptive Statistics for School Characteristics

Suspension rates varied widely across schools. The average Virginia high school in this study suspended approximately 15.1% of its students at least once during the school year, with a standard deviation of 9.1% and a range of 2.9% to 58% (Table 1). Black and White suspension rates were highly correlated ($r = .76, p < .001$). Because a correlation does not reflect the magnitude of discrepancy between two variables, the difference between Black and White suspension rates was examined. Across schools, Black suspension rates ($M = 24\%$) were more than double White suspension rates ($M = 11\%$), $t(199) = 25.85, p < .001$.

We operationally defined “suspension gap” as the difference between the suspension rates of Black and White students and calculated it by subtracting the White suspension rate from the Black suspension rate. The suspension gap had a mean of .13 ($SD = .07$) and ranged from $-.11$ (higher suspension rate for White than Black students) to .37 (higher suspension rate for Black than White students); however, only three schools had rates

that were higher for White than Black students. An alternative way to describe the suspension gap is to calculate a risk ratio that represents the likelihood that a Black student would be suspended compared to a White student (Gregory et al., 2010). The average risk ratio was 2.18 (0.24 divided by 0.11) and ranged from 0.00 to 6.25 across individual schools. It should be noted that this risk ratio can range from 0.00 to $+\infty$, with 1 being the neutral point representing no difference between the suspension rates of Black and White students. We judged that the difference in rates would be more useful and informative than the risk ratio in this study. A 13% difference in suspension is more readily understood and comparable than a risk ratio of 2.18. In addition, the achievement gap literature tends to use differences in test results to compare across racial/ethnic groups (e.g., Vanneman et al., 2009). Therefore, to facilitate interpretation and to present findings that parallel achievement gap research, we used the difference in rates as a dependent variable in the analyses.

The correlations among the suspension rates show that schools with high rates of Black suspension tended to have high rates of White suspension ($r = .76, p < .001$; Table 2). The suspension gap was highly correlated with Black suspension ($r = .77, p < .001$) and less correlated with White suspension ($r = .18, p < .05$). The sociodemographic characteristics of the schools were interrelated. Larger schools were in more urban areas and had a smaller proportion of students who qualified for FRPM ($r = .39, p < .001$; $r = -.39, p < .001$, respectively). Schools with a greater proportion of Black students were more urban and had a greater proportion of students with FRPM ($r = .19, p < .01$; $r = .70, p < .001$, respectively).

Predicting Suspension Rates Using Multiple Regression Analyses

We used Black student suspension rate, White student suspension rate, and the suspension gap respectively as the outcome variable in separate analyses. For each outcome variable, we implemented a three-step nested regression analysis approach. In Step 1, variables of school sociodemographic characteristics (school size, urbanicity, school poverty, and proportion of Black students) were used as independent variables. In Step 2, school environment variables (experience of school rules, supportive climate, academic press) were added to the regression model. In Step 3, two interaction terms between school environment variables were added to the model. This nested approach allowed us to assess the additional contribution of school environment variables to school suspension rates after controlling for school sociodemographic variables.

We examined regression diagnostics for potential outliers using SPSS 17.0. Two schools stood out as having very high standardized residual values, ranging from 2.9 to 4.2, for at least two of the three outcome variables. Following recommendations from the regression analysis literature (e.g.,

Table 2
Intercorrelations Among Suspension Rates and School Variables (N = 199 schools)

	1	2	3	4	5	6	7	8	9	10
1. School enrollment	—									
2. Urbanicity	.39***	—								
3. % free/reduced meals	-.39***	.12	—							
4. % Black	-.15*	.19**	.70***	—						
5. Experience of school rules	-.02	-.16*	-.12	-.20**	—					
6. Academic press	.06	.03	.03	.03	.30***	—				
7. Supportive climate	-.02	.03	-.24**	-.39***	.47***	.45***	—			
8. Black suspension rate	-.28***	-.11	.39***	.42***	-.16*	-.25***	-.32***	—		
9. White suspension rate	-.46***	-.24**	.52***	.44***	-.16*	-.20**	-.29***	.76***	—	
10. Suspension gap ^a	.02	.07	.09	.21**	-.08	-.19**	-.19**	.77***	.18*	—

* $p < .05$. ** $p < .01$. *** $p < .001$.

^aDifference in suspension rates was calculated by subtracting White rates from Black rates.

Pedhazur, 1997), we excluded them from the analyses, thus reducing our sample size to 199 schools.¹

Sociodemographic characteristics and suspension rates. For the Black student suspension rate, the school sociodemographic variables in Step 1 accounted for 24% of variability in suspension rates across schools (Table 3). Schools with a greater proportion of Black students tended to have higher suspension rates for Black students ($\beta = .35, p < .001$). Compared to Black suspension rates, school sociodemographic variables explained more of the variance in White suspension rate across the schools (42%), as shown in Step 1 of the multiple regression analysis. All four of the demographic variables predicted suspension rates. Larger schools and more urban schools had lower rates ($\beta = -.21, p < .01$; $\beta = -.25, p < .01$ respectively). Schools with more low-income students (% FRPM) and with a greater proportion of Black students had higher rates of White suspension ($\beta = .29, p < .01$; $\beta = .25, p < .01$, respectively). The sociodemographic characteristics of schools explained 5% of the variance in the disparity in suspension rates between Black and White students, as shown in Step 1 of the multiple regression model. Schools with a greater proportion of Black students tended to have larger suspension gaps ($\beta = .28, p < .01$).

School climate and suspension rates. Step 2 of the multiple regression models shows that the school climate variables explain unique variance above and beyond the sociodemographic characteristics of the schools. For Black suspension rates, they explain a statistically significant 6% of variance and, for White suspension rates, they accounted for 4% of variance (Step 2, Table 3). For the rates of the suspension gap, the addition of the school environment variables in Step 2 explained 4% more of the variance. Given that the interaction terms were significant at Step 3 for each dependent variable, it would be problematic to interpret the main effects as represented by the school climate coefficients entered in Step 2; instead, we focus on the interpretation of the interaction effects, as discussed below.

For Black suspension rates, the inclusion of the interaction terms in Step 3 explained an additional 7% of variance in suspension rates (Table 3). The Support \times Academic Press interaction was significant ($\beta = 7.41, p < .001$), which shows that the association of academic press with suspension rates varied by level of support. The Support \times Experience of School Rules interaction was nonsignificant. A similar pattern of findings held for White suspension rates and rates of the suspension gap. Specifically, the interaction terms explained an additional 5% of variance in the White suspension rates and 4% of variance in the suspension gap. The Support \times Experience of School Rules interaction was nonsignificant for both outcomes. Similar to the Black suspension rate, the Support \times Academic Press interaction was significant for White suspension rates ($\beta = 6.21, p < .001$) and the

Table 3
Hierarchical Multiple Regression Analyses Predicting Suspension Rates

	Black Suspension Rate			White Suspension Rate			Suspension Rate Gap (Black – White)		
	β	R^2	ΔR^2	β	R^2	ΔR^2	β	R^2	ΔR^2
Step 1		.242***	.242***		.416***	.416***		.051*	.051*
School size	-.12			-.21**			.01		
Urbanicity	-.14			-.25***			.03		
School poverty (FRPM)	.12			.29**			-.11		
Proportion Black	.35***			.25***			.28**		
Step 2		.308**	.066**		.457***	.041**		.092*	.041*
School size	-.11			-.20**			.02		
Urbanicity	-.14			-.25***			.04		
School poverty (FRPM)	.13			.31***			-.10		
Proportion Black	.32**			.23***			.27*		
Experience of school rules	-.01			-.06			.05		
Supportive climate	-.05			-.02			-.05		
Academic press	-.23**			-.16*			-.19*		
Step 3		.38***	.072***		.508***	.051***		.127*	.035*
School size	-.10			-.19**			.03		
Urbanicity	-.12			-.24***			.05		
School poverty (FRPM)	.08			.26**			-.14		
Proportion Black	.38***			.28**			.31**		
Experience of school rules	-.25			-.27			-.12		
Supportive climate	-.5.32***			-.4.46***			-.3.72*		
Academic press	-.3.86***			-.3.21***			-.2.72**		
Support X academic press	7.41***			6.21***			5.16*		
Support X experience of school rules	.43			.37			-.29		

Note. FRPM = free or reduced-price meal.

suspension gap ($\beta = 5.16, p < .05$). Again, this shows that the association of academic press varied by the degree of support.

Interpreting the significant interaction terms. As is well known in the analytical literature (e.g., Cohen, Cohen, West, & Aiken, 2003; Pedhazur, 1997), in the presence of a statistically significant interaction effect, it would be problematic to interpret the main effects without examining the interaction. To aid in interpretation of the significant Support \times Academic Press interactions, schools were divided into four groups according to whether they were above or below the mean on the Academic Press and Supportive School Climate scales. This mean-split approach resulted in four groups (high/high, high/low, low/high, and low/low; see Table 4). The adjusted means on the outcome variable (i.e., suspension rates for Black and White students, respectively, and the suspension gap) for the four groups were obtained after taking into account the influence of school demographic characteristics (% FRPM, school size, urbanicity, and % Black students). These estimated adjusted means were calculated for descriptive purposes to elucidate the pattern of interaction effects previously found to be statistically significant in the regression analyses, and they are graphically presented in Figures 1 to 3.

As shown in Table 4 and Figures 1 to 3, after taking into account school demographic characteristics, schools with low levels of both support and academic press had the highest suspension rates for Black ($M = 28\%$) and White ($M = 13\%$) students. These schools also had the highest gap between Black and White students ($M = 15\%$). The patterns of means for the low/high, high/low, and high/high groups were less distinct. If schools were high on support or academic press or both, they had lower rates of suspension for Black and White students, and they also had smaller gaps between the Black and White suspension rates.

Discussion

Study findings support the characterization of high school climate in terms of our model of authoritative structure and support. There were consistent relationships between schoolwide suspension rates and one measure of structure, based on the degree to which students perceive their teachers as having high academic press/expectations, and the measure of supportiveness, as reflected in student perceptions of teachers as caring and respectful. Moreover, characteristics of structure and support, in interaction with each other, were correlated with schoolwide suspension rates for Black and White students and with the gap between Black and White suspension rates. The measure of structure based on student perceptions of school rules as fair and strictly enforced, however, was not associated with suspension rates.

Table 4
Comparing Suspension Rates in Schools With Differing Levels of Support and Structure

Dependent Measures	(1) Low Support, Low Academic Press (<i>n</i> = 66)		(2) Low Support, High Academic Press (<i>n</i> = 33)		(3) High Support, Low Academic Press (<i>n</i> = 31)		(4) High Support, High Academic Press (<i>n</i> = 69)	
	<i>M</i> ^a	<i>SE</i>	<i>M</i>	<i>SE</i>	<i>M</i>	<i>SE</i>	<i>M</i>	<i>SE</i>
Black suspension rate	.28	.01	.22	.02	.19	.02	.22	.01
White suspension rate	.13	.01	.11	.01	.09	.01	.10	.01
Suspension gap ^b	.15	.01	.12	.01	.10	.01	.12	.01

^aEstimated marginal means with covariates considered (free or reduced-price meal, school size, urbanicity, proportion Black students).

^bDifference in suspension rates was calculated by subtracting White rates from Black rates.

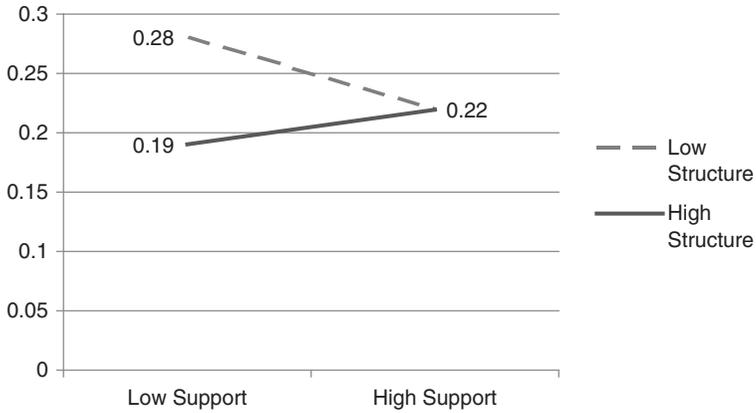


Figure 1. Varying academic structure and support and Black suspension rates.

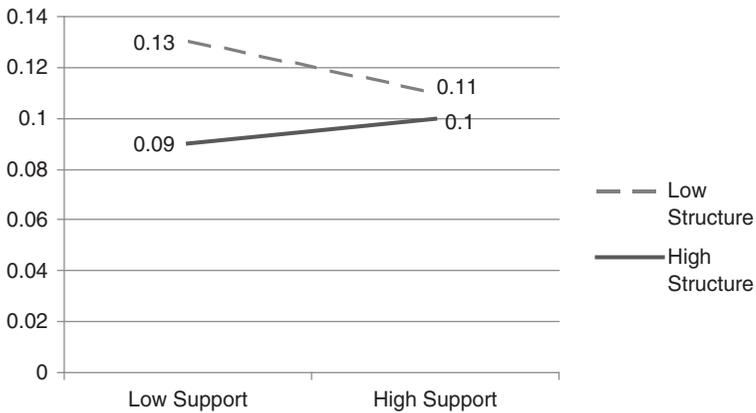


Figure 2. Varying academic structure and support and White suspension rates.

In schools where a sample of ninth grade students perceived low academic press (low structure) and low support, greater proportions of Black and White students were suspended. Using nomenclature adapted from Baumrind’s parenting model as applied to schools (Gregory & Cornell, 2009), schools that can be characterized as “indifferent” to students, which is the opposite from the authoritative model, were most likely to suspend their students. In addition, they had larger suspension gaps than schools high on either academic press or support. In sum, indifferent

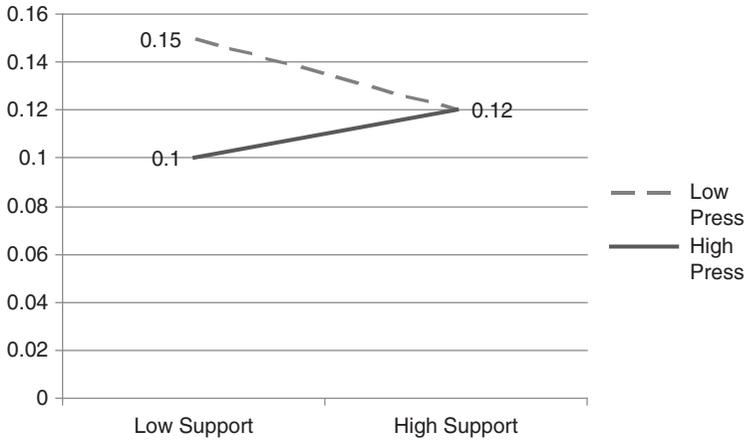


Figure 3. Varying academic structure and support and suspension gaps.

schools—schools with low structure and low support—were negatively associated with suspension outcomes. This suggests that the application of a parenting framework was especially useful in identifying at-risk (indifferent) schools.

Moreover, these findings highlight the importance of an academic dimension of structure for discipline outcomes. Even in a climate of low support, the degree to which students perceived that teachers pushed them to work hard and tackle challenging assignments (high academic press) was associated with lower suspension rates across all the suspension outcomes compared to schools with low academic press. These findings extend previous research showing teachers’ expectations for student success are linked to the development of students’ academic self concept and achievement over time (Kuklinski & Weinstein, 2001). A similar process may occur at the school level and in relation to positive behavioral outcomes. Given that we cannot make causal claims based on correlational results, we can only speculate that a climate of high academic expectations could have a socializing function. As a whole, students may internalize the academic mission of school and become more invested in upholding school rules. Another possible explanatory link between academic press and low suspension rates relates to how staff perceive and respond to student misbehavior. Perhaps in schools with high academic expectations, staff react less punitively to misbehavior and successfully reengage rule breakers in the learning process, because of their greater emphasis on developing academic talent compared to staff in schools with low academic expectations. Alternatively, high rates of student misbehavior may result in teachers

lowering their expectations. Both casual directions are possible and are not mutually exclusive and merit further study.

Patterns in suspension rates. The current study builds on previous research findings that show Black students tend to be suspended at higher rates than White students (American Psychological Association [APA] Zero Tolerance Task Force, 2008). About 1 out of every 4 Black students versus 1 out of every 10 White students received at least one short-term suspension, which is similar to national patterns (Wallace et al., 2008). Moreover, the pattern of disproportionality was observed consistently within schools and was not simply due to a high rate of Black suspension in schools with a large Black enrollment. Although the Black suspension rate was higher in schools with larger Black enrollments, the disproportionately high suspension of Black students was also observed in schools with relatively small numbers of Black students. (One qualification to this finding is that schools with fewer than 10 Black students or 1 to 9 suspensions were not included in the sample.) This finding from a statewide sample of public high schools is the first to replicate what has been shown in case studies of single high schools (Gregory & Weinstein, 2008).

The consistently higher rate of suspension among Black students suggests that, within the same high school, Black and White students have divergent experiences of the discipline system. The 24% suspension rate for Black students is more than 2 times higher than the 11% suspension rate for White students. The likelihood a Black student would be suspended compared to a White student (or risk ratio) was 2.18. However, this statement must be qualified by the observation that suspension rates of Black and White student groups were highly correlated ($r = .76$). This suggests two interrelated trends: (a) overall, Black students were suspended at higher rates than White students; but (b) if schools had high rates of suspension, they tended to suspend both Black and White groups at high rates. These trends indicate the need to determine both why almost all schools suspend Black students more frequently than White students and why some schools have so much higher rates of suspension than other schools. With suspension rates ranging from less than 3% to greater than 47% and standard deviations between 7% and 10%, there is considerable variation among high schools in their suspension rates. The characteristics of school climate investigated in this study offer some insight into understanding these trends.

Indifferent schools. As we hypothesized, the interaction of structure and support was associated with all three measures of suspension rates. However, when we used mean splits to classify schools into rough approximations of four types of schools, the resulting pattern of findings was only partially consistent with our theory. The schools that were least authoritative—lowest in structure and support—had the highest suspension rates. Our

classification did not clearly distinguish the authoritative schools (high on both structure and support) from the schools high on either structure or support.

One possible explanation for these unexpected findings is that our scales might not be appropriately scaled and calibrated for optimal assessment of the full range of structure and support observed in high schools and a mean split might not be the most appropriate strategy for categorizing schools. We must view our findings as heuristic rather than definitive. It is conceivable that more refined measures of structure and support would differentiate authoritative schools from those that are comparable in either structure or support but not both characteristics of school climate. Nevertheless, whereas previous studies have considered the problem of racially disproportionate discipline from the standpoint of administrator policy and practices (APA Zero Tolerance Task Force, 2008), our findings indicate that there may be broader features of the school climate to consider.

The striking findings for schools low on structure and support led us to consider more carefully the category of *indifferent* schools that are the counterpart to authoritative schools. Baumrind and subsequent scholars have repeatedly found that children with parents who are neither demanding nor responsive (variously described as indifferent, unengaged, or neglectful parents) have worse outcomes than those whose parents are demanding, responsive, or both (Baumrind, 1991; Maccoby & Martin, 1983; Pellerin, 2005). Similarly, Lamborn et al. (1991) found that adolescents describing their parents as low in acceptance/involvement and strictness/supervision had higher problem behavior and lower social competence compared to adolescents with authoritative parents. Likewise, Pellerin (2005) categorized schools as indifferent if they were low on measures of responsiveness and demandingness. She found that in indifferent schools, more students were disengaged (e.g., tardy, absent), compared to students in authoritative schools.

Similar to Pellerin's (2005) study, the current findings showed that schools we defined as indifferent because of below average structure and support had the highest suspension rates. Specifically, in the multiple regression analyses, the interaction terms for structure and support explained a significant amount of variance in the suspension outcomes (ranging from 4% to 7%). The Support \times Academic Press interaction was a significant predictor for all three suspension outcomes. The plotted estimated means from the ANCOVA analyses (Figures 1–3) show that regardless of school sociodemographic risk, schools below the mean on academic press and also below the mean on support had the highest White and Black suspension rates, compared to other schools. For instance, 28% of Black students were suspended in indifferent schools, whereas 22% of Black students were suspended in authoritative schools (high on academic press and high on support). Similarly, 13% of White students were suspended in indifferent schools,

whereas 10% of White students were suspended in authoritative schools. These patterns suggest that the potential predictive power of academic press depended on the level of support in the school, which supports the idea that structure and support should be examined in tandem.

The suspension gap. The risk of indifferent schools extended to suspension gaps. Indifferent schools had a 15% gap between Black and White suspension rates, whereas authoritative schools had a 12% gap. Clearly, there are other factors to consider in understanding the suspension gap, but the findings raise questions about the underlying mechanisms that could explain why schools low on *both* academic press and support had greater disproportionality in suspension rates. In other words, why might Black students receive more suspensions in indifferent schools compared to White students? A correlational study cannot establish a *causal* relationship between school climate and suspension rates but can provide the basis for causal hypotheses that can be tested in future studies. Accordingly, we hypothesize that, at indifferent schools, students may perceive that teachers tend *not* to demand a high level of understanding of the academic material and tend *not* to communicate a high degree of care for students. This could reflect a lack of closeness and trust between teachers and students that may be especially deleterious for groups who have been historically stigmatized. Without trust, Black students may be more wary of their teachers' intentions. Past research suggests that Black students develop less trust and exhibit less cooperation with teachers who do not get to know them personally (Gregory & Ripski, 2008).

In addition, Black students can be attuned to teachers' low academic expectations, which can undermine their performance (Weinstein, 2002). In a climate of distrust, teachers may be more vulnerable to negative stereotyping of Black students as unmotivated, disengaged, and defiant (Ferguson, 2000). One study of 19 middle schools showed disciplinary referrals for Black students were more likely to occur in response to behaviors (loitering, disrespect, threat, excessive noise) that appear to be more subjective in nature compared to referrals for White students (smoking, vandalism, leaving without permission, obscene language; Skiba et al., 2002). Future studies might investigate whether low expectations and negative stereotyping are linked to subsequent conflicts between teachers and Black students, which then results in more punitive sanctions issued to Black students.

Another possible mechanism to help explain why Black students are especially at risk in indifferent schools relates to the protective effects of structure and support. Some racial and ethnic groups with a history of unequal schooling and academic underperformance may benefit from high academic expectations and adult relational resources in schools. In the early grades, strong instruction and emotional support in the classroom have been shown to serve as protective factors for young children at risk for

negative discipline trajectories (Hamre & Pianta, 2005). A similar trend may occur in high school. Black students as a group are more likely to enter high school with a history of low achievement and discipline referrals than White students as a group. As a result, Black students may be particularly vulnerable to the negative effects of school climates lacking in academic press and support. Without the push to stay engaged in coursework and emotional support from teachers, they may be more likely to reject school rules and be sanctioned for rule infractions via suspension. Again, future research would need to investigate this possible mediating mechanism.

School sociodemographic risk. The multiple regression analyses included four measures of school sociodemographic risk—school urbanicity, student poverty, racial composition, and enrollment. The study shows that the disproportionate suspension rate of Black students, compared to White students, was not an artifact of school demographics. The higher Black suspension rate was observed in almost all schools. The statewide sample of high schools allowed for an examination of suspension rates while taking into account the diversity of school demographics in a state like Virginia. The sample was composed of urban, suburban, and rural schools, and each of these regions included a range of student poverty.

Together the four school sociodemographic risk variables were significant predictors and accounted for 42% of the variance in White suspension rates across schools. Larger schools and schools located in more urban areas tended to have proportionally fewer White students suspended compared to smaller schools and schools located in more rural areas. This finding runs counter to the stereotype of dangerous, disruptive urban schools that are contrasted with presumably more orderly and peaceful rural schools.

Noteworthy is that school enrollment, poverty, and urbanicity were non-significant predictors of Black suspension rates or the suspension gap between Black and White students. Yet one school demographic characteristic stood out as a significant predictor of all three suspension outcomes: Schools with high Black enrollment tended to suspend more White students and more Black students and to have greater suspension gaps. This consistent finding across the three key demographic variables is striking and raises many questions about the climate and discipline practices of schools with high Black student enrollment. Is there something about the climate, school practices, discipline policies (e.g., zero tolerance policies), or other conditions in schools with a high Black student enrollment that leads to higher use of suspension as a general discipline practice? These findings call for particular investigation of the school climate, student behavior, and discipline practices of schools with high Black enrollment. It would be important to consider the racial composition of the faculty and administration, as well

as their relative level of experience and compensation in comparison to other schools with lower Black enrollment.

Of special interest is why the discipline gap widens in schools with greater numbers of Black students. In other words, why would Black students be suspended at a higher rate in schools where they are more numerous and in some cases represent the numerical majority in the student body? Could processes related to racial profiling and implicit bias (Graham & Lowery, 2004) lead to greater reactivity to Black student behavior and harsher sanctions? Could a predominantly White teacher staff and a predominantly Black student body result in more frequent cultural insensitivities and misunderstandings (Gay, 2006)? Another possibility is that the neighborhood conditions of predominantly Black attendance zones could have an effect on student attitudes and engagement in school that engenders conflict with school rules and expectations. E. Anderson's (1999) observations about the "code of the street" in high poverty neighborhoods suggest that students might experience conflict with school authorities because attitudes of self-assertion, independence, and toughness that are adaptive in some inner-city neighborhoods are maladaptive in school settings where compliance with school rules and authority is paramount. A recent study, however, found that schools with a larger composition of Black students tend to issue harsher sanctions for student misbehavior, even when taking into account the poverty of enrolled students, student-reported delinquency and drug use, and the concentrated disadvantage of the surrounding neighborhood (Welch & Payne, 2010). The authors argue that their findings support the racial threat hypothesis, which asserts that where there are larger percentages of Black people, there is more social control. Racial composition and school discipline deserve continued examination in comparative studies across schools with varying racial composition and independent assessment of neighborhood culture and conditions.

Limitations

An important limitation is that this study examined correlational relationships between measures of school climate and suspension that cannot establish the existence or direction of causal effects. Bidirectional causal effects may occur such that school discipline practices affect school structure and support. In other words, we cannot be certain whether suspensions stem from negative school environments or whether students perceive a negative environment as a reaction to the suspensions. Experimental interventions designed to manipulate school climate and/or disciplinary practices are needed to demonstrate the directionality of effects. In addition, the associations reported in this article do not necessarily generalize to schools with fewer than 10 suspensions for either Black or White

students or the types of schools we excluded for large standardized residuals.

We also had an uneven composition of Black and White students in schools, which may have skewed the suspension rate if one group was extremely underrepresented. We reran analyses by excluding schools with enrollments of fewer than 40 students in each group ($n = 4$ schools). This had no appreciable effect on results. We then reran analyses with a smaller sample of 61 schools with a more even composition of Black and White students ($> 30\%$ for each group). The pattern of results with the school climate variables remained similar.

Our sampling of schools may also raise concern about potential sampling bias given that we had missing data on schools with one to nine suspensions. This source of sampling bias was unavoidable due to the practice of the Virginia Department of Education not to release data for demographic cells with one to nine students. This practice, and similar practices by other educational agencies, represents an effort to comply with Family Educational Rights and Privacy Act restrictions on the release of data that might permit someone to guess the identity of an individual student. It would be important for the U.S. Family Policy Compliance Office to permit educational institutions to share suspension data with researchers in a manner that protects the confidentiality of student records yet makes it possible to investigate critical issues for minority students.

Directions for Future Study

Future studies could differentiate Black and White student perceptions of the school environment. The current study aggregated measures of structure and support obtained from approximately 25 students in each school. A larger sample of students from each school would make it possible to compare perceptions of the school climate by race. Future research should consider testing whether Black and White students experience their school climate differently (Mattison & Aber, 2007) and whether these differential experiences can help explain the racial difference in suspension rates. A recent study (Shirley & Cornell, in press) found that racial differences in fighting and weapon carrying at school were largely attributable to differential experiences of safety and social support at school.

Another direction for future study is to examine the link between individual student survey responses and their disciplinary records. Our measures of school climate were more distal from individual suspension outcomes, and as a result our findings may underestimate the strength of the relationship. Are the students with the most negative perceptions of school climate at greatest risk for school suspension? School restrictions on confidentiality prevented us from collecting such sensitive information in this study. Future research should utilize multilevel models and draw on

both individual and school level data. Individual information on students' gender, socioeconomic status, achievement, and suspension records would help distinguish direct effects of these variables on individual students from broader effects of structure and support in the school environment.

Additional research is also needed to further develop indices of structure. Our conception of structure included an academic (academic press) and a behavior dimension (experience of school rules). Experience of school rules was not predictive of the suspension outcomes despite previous research that has shown that students' perceptions of fairness and consistency in the enforcement of rules are associated with lower student victimization and less school disorder (Gottfredson et al., 2005; Welsh, 2000). Additional measurement development may be needed to capture students' sense of high expectations for behavior, consistent follow-through with school rules, and clear communication of standards for behavior.

Summary

Disproportionate suspension of Black students remains a problem in American high schools. This study showed that the suspension gap can be found across a diverse, statewide sample of schools. Disproportionate suspension cannot be attributed to school size, urbanicity, or student poverty, although these demographics are associated with White, but not Black, suspension rates. Notably, the proportion of Black students in the school appears to be an important correlate of suspension rates that is associated with both Black and White suspension rates as well as the suspension gap.

The schools with the highest suspension rates were those perceived by ninth graders as low in structure and support. The significant interaction term suggests that schools need to consider the *combination* of structure and support, which is consistent with the application of parenting theory to schools. However, the most consistent differences were found for the indifferent schools that are the opposite from authoritative schools. One implication is that efforts to improve student behavior and lower suspension rates should consider the potential role of school climate. Schools in which the students experience neither a strong sense of support by teachers nor high expectations of academic achievement appear to be most vulnerable. Identification of those schools is not, on its own, sufficient. Future studies could test these hypotheses by developing interventions designed to positively change students' experience of the school climate. If successful, these interventions might reduce the use of school exclusion as a disciplinary consequence.

Appendix

Experience of School Rules

Thinking about your school over the last 6 months, would you strongly agree, agree, disagree, or strongly disagree with the following . . . (*strongly disagree, disagree, agree, strongly agree*)

Everyone knows the school rules for student conduct.

The school rules are fair.

The punishment for breaking school rules is the same no matter who you are.

The school rules are strictly enforced.

If a school rule is broken, students know what kind of punishment will follow.

We have a strict dress code at school.

If a student breaks the rules at this school, he or she will be punished.

Source. School Crime Supplement to the National Crime Victimization Survey (National Center for Education Statistics, 2005).

Academic Press

How true is this in your school? (not at all, not very true, somewhat true, true, very true)
When I've figured out how to do a problem, my teachers give me more challenging problems to think about.

My teachers press me to do thoughtful work.

When I'm working out a problem, my teachers tell me to keep thinking until I really understand.

My teachers don't let me do just easy work, but make me think.

My teachers make sure that the work I do really makes me think.

My teachers accept nothing less than my full effort.

Source. Midgley, Maehr, Huda, Anderman, and Freeman (2000).

Supportive Climate

How much do you agree that adults in this school . . . (*strongly disagree, disagree, somewhat agree, agree, strongly agree*)

Really care about all students.

Acknowledge and pay attention to students.

Want all students to do their best.

Listen to what students have to say.

Believe that every student can be a success.

Treat all students fairly.

Support and treat students with respect.

Feel a responsibility to improve the school.

Source. Austin and Duerr (2005).

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¹The set of predictors in each step of the regression analyses explains an additional 1% of the variance in the suspension outcomes when the two schools are excluded.

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